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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

012458

OFFICIAL RECORD
HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361

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HEALTH EFFECTS DIVISION
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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: ID. No. 067505-L Ecto F 724, Domestic Animal Safety
Study in Cats

P.C.
Tox. Chem. No.: 129032
DP Barcode #: D230280
Record No.: S511769

FROM: Melba S. Morrow, D.V.M. *Mem 11/21/97*
Registration Action Branch I
Health Effects Division (H7509C)

TO: Joseph Tavano/Rick Keigwin, Team 10
Registration Division (H7505W)

THRU: Ed Zager *Ed Zager*
Chief, Registration Action Branch I
Health Effects Division (H7509C)

Registrant: Ecto Development Corp.

SUBMISSION: A domestic animal safety study was submitted along with product labelling for Ecto F724 with IGR.

EXECUTIVE SUMMARY: When Ecto F724 Spot-on (5.3% a.i.) with IGR was topically administered to adult and juvenile cats (6/sex/dose/age for treated animals and 4/sex/age for controls) at concentrations up to 5 times the proposed label use, there were no compound related effects, other than slight hypersalivation in one juvenile male cat and a 37% decrease in body weight gain in female kittens at the 5X dose level. Observations were made for toxicological effects and hematology and serum chemistry evaluations were conducted on days 1, 7, 27 and 35. Based on this information, the product has an adequate margin of safety when used according to label directions. The study is acceptable and satisfies the requirement for a domestic animal safety study. (MRID44112808).

A copy of the DER is attached for your records.

The labelling for the Ecto F724 should be revised such that the

statement which reads "Prevents fleas on your cat from continuing to infest your house" is removed from the label. This recommendation is made because the product has no activity against adults which are present on the cat at the time of treatment and Ecto F724 will not prevent them from being a source of infestation unless an adulticide is used along with this product.

EPA Reviewer: Melba S. Morrow, DVM Date 11/21/97
Registration Action Branch I
EPA Secondary Reviewer: Guruva Reddy, DVM, PhD 11/24/97
Reregistration Action Branch II

DATA EVALUATION RECORD

012458

STUDY TYPE: Domestic Animal Safety

DP BARCODE: D230280

SUBMISSION CODE: S511769

P.C. CODE: 129032

TOX. CHEM. NO.: N/A

TEST MATERIAL (PURITY): Ecto 724 Spot-on with IGR (2-(1-methyl-2-(4-phenoxyphenoxy)ethoxy)pyridine), Purity 5.3%

SYNONYMS: Nylar

CITATION: Kuhn, Janice (1996). Target Animal Safety Evaluation of Ecto F724 Spot-on for Cats with IGR. Stillmeadow, Inc., Sugarland, Texas. Study no. 2868-96. September 1996. MRID 44112808. Unpublished report.

SPONSOR: Ecto Development Corporation
Excelsior Springs, Missouri

EXECUTIVE SUMMARY: When Ecto-724 Spot-on (5.3% a.i.) with IGR was topically administered to adult and juvenile cats (6/sex/dose /age for treated and 4/sex/control group/age) at concentrations up to 5 times the proposed label use, there were no compound related effects, other than the slight hypersalivation that was observed on the first day of treatment in one juvenile male cat and a 37% decrease in body weight gains of female kittens, both at the 5X level. Observations were made for toxicological effects and hematology and serum chemistry evaluations were conducted on days 1, 7, 27 and 35. Based on this information the product has an adequate margin of safety when used according to label directions. (MRID44112808)

The study is acceptable and satisfies the requirement for a domestic animal safety study.

COMPLIANCE: Signed and dated GLP, Quality Assurance, Data Confidentiality, and Flagging statements were provided.

I. MATERIALS AND METHODS

A. MATERIALS:

1. Test Material: Ecto 724 Spot-on w/IGR
Description: white liquid
Lot/Batch #: E-95-01-F724-65
Purity: 5.3 % a.i.
CAS #: 129032
2. Vehicle and/or positive control: water
3. Test animals: Species: cats
Strain: Domestic Shorthair
Age and/or weight at dosing: juveniles: 2.5-3.0 months,
adults: approximately 11 months
Source: Stillmeadow, Inc. Cat colony Sugarland Texas
Acclimation period: 2 weeks
Diet: ad libitum
Water: ad libitum
Animals individually housed in environment of 72° F.; RH
30-80%; 12 hour light/dark cycle.

B. STUDY DESIGN and METHODS:

1. In life dates - start: May 10, 1996 end: July 11, 1996
2. Animal assignment and treatment - Animals randomly assigned to treatment groups using weight stratification to the following groups

	Group	Material	Vol.	# Animals	
Juveniles	Group I	water	7.5 mL	4M	4F
	Group II	5x conc.	7.5 mL	6M	6F
Adults	Group III	water	7.5 mL	4M	4F
	Group IV	3X	4.5 mL	6M	6F
	Group V	5X	7.5 mL	6M	6F

Test material or water control was administered topically at pre-determined volumes on days 0 and 21. Observations were made for pharmacologic and toxicologic effects, daily. Body weights were recorded on days 0, 8, 14, 21, 27 and 35. Blood was collected on days 1 and 7 and on days 27 and 35 for hematology and serum chemistry evaluations.

3. Statistics - Student's t-test or Anova were used to compare treated to control groups. Significance was at $p < 0.05$

II. RESULTS AND DISCUSSION:

- A. Mortality No mortality was reported during the study.
- B. Clinical observations - Clinically, slight hypersalivation was reported on the first day of treatment in one of the juvenile male cats receiving the 5X dose level. This symptom was not apparent at other observation intervals and did not occur following the second dosing. In adult animals receiving 3X, loose stools were reported in one male on day 8 and in one female on day 12. This observation was not made at the 5X level and was not believed to be related to treatment with Ecto F724 Spot-on.

Hematology and serum chemistry values were unremarkable. Spondin~~2~~2 reveal similar alterations in white cell counts in adults on day 1 but these values were not statistically significant. A re-evaluation of the affected animals on day as reported at day 1.

- C. Body Weight - Body weight gains were reported for all juveniles; however, if ~~few~~ ~~white~~ ~~killed~~ ~~scrubbed~~ ~~down~~ ~~ings~~ ~~there~~ ~~5X~~ ~~repor~~ ~~63~~ ~~6X~~ ~~increa~~ level gained less weight than the controls (37% less). Food consumption for this group was slightly lower than that reported for other juvenile groups of both sexes.
- D. Necropsy - Animals were not sacrificed at the end of the study.
- E. Deficiencies - *The only deficiency in this study was the use of 4 animals per sex per group for controls. This will not compromise the study results or affect the ability of the reviewer to determine the margin of safety for Ecto F724 Spot-on.*
- F. Conclusions - When Ecto-724 Spot-on with IGR was topically administered to adult and juvenile cats at concentrations up to 5 times the proposed label use, there were no compound related effects, other than the slight hypersalivation that was observed on the first day of treatment in one juvenile male cat and a 37% decrease in body weight gain in female kittens at the 5X level. Based on this information the product has an adequate margin of safety when used according to label directions.

The study is acceptable and satisfies the requirement for a domestic animal safety study.

full label - Front Panel

ECTO F724 PRODUCT

012458

FOR USE ON CATS AND KITTENS OVER 12 WEEKS OF AGE

- ° BREAKS FLEA LIFE CYCLE!
- ° KILLS FLEA EGGS AND LARVAE FOR 30 DAYS!
- ° PREVENTS FLEA EGGS FROM DEVELOPING INTO BITING ADULTS FOR 30 DAYS!
- ° AIDS IN THE CONTROL OF FLEA POPULATIONS!
- ° WATER BASED FORMULA WITH NO SOLVENT ODOR!
- ° PREVENTS FLEAS ON YOUR CAT FROM CONTINUING TO INFEST YOUR HOUSE!
- ° EASY TO APPLY SPOT-ON FORMULATION

ACTIVE INGREDIENTS

Pyriproxyfen: 2-[1-methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine..... 5.3%

INERT INGREDIENTS..... 94.7%
TOTAL 100.0%

KEEP OUT OF THE REACH OF CHILDREN
CAUTION
SEE BACK PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

Net Contents: 1.5 mL

EPA Reg. No.: 67505-

EPA Est. No.:

Manufactured For
Ecto Development Corporation
1229 N. Jesse James Road
Excelsior Springs, MO 64024

(lot number statements as needed)

Mfg. & Printed in U.S.A.

(label revision number)

(product number)

full label - Front Panel

ECTO F724 PRODUCT

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Hazards to Humans:

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Hazards to Domestic Animals: For external use only. Do not use on cats under 12 weeks of age. Do not use on sick, aged, medicated, pregnant, or nursing ~~pets~~ without consulting a veterinarian. *cats*

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or if available by administering syrup of ipecac. IF PERSON IS UNCONSCIOUS, DO NOT GIVE ANYTHING BY MOUTH AND DO NOT INDUCE VOMITING.

If In Eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read entire label completely before using. Do not get this product in your pet's eyes or mouth. Repeat applications may be made if necessary, but do not apply more often than once every 3 weeks. Do not use this product in or on electrical equipment due to the possibility of shock hazard. Do not use on kittens under 12 weeks of age.

HOW TO APPLY:

FOR FOLDING CARD OR TABBED CARD UNIT-DOSE PACKING: Remove product tab by tearing along perforation. Holding tab with tube end pointed up and away from face and body, cut along dotted line. While gently holding cat, use the narrow end of the tab to part cat's hair, and apply product as a narrow stripe down cat's back from back of head to base of tail. Squeeze tube firmly to apply all of the solution directly to cat's skin. Continue to gently restrain cat for a few seconds until product absorbs into cats coat. Wrap tab and put in trash.

**** FOR MULTI-DOSE PACKAGING:** Withdraw 1.5 ml of solution at a time. While gently holding cat, apply entire given dose directly to the cat's skin as a narrow stripe down the cat's back from the back of the head to the base of the tail. Continue to gently restrain cat for a few seconds until product absorbs into cats coat.

Cat Spot-On Label (full)

full label - Front Panel

ECTO F724 PRODUCT

DIRECTIONS FOR USE (Continued)

HOW TO APPLY: (Continued)

**** FOR DROPPER BOTTLE MULTI-DOSE PACKAGING:** Insert dropper tube into insecticide solution, squeeze bulb and then release to fill tube barrel to 1.5 ml line. While gently holding cat, position dropper tube end in cat's hair next to skin and squeeze bulb to apply entire given dose directly to the cat's skin. Apply as a narrow stripe down cat's back for the back of head to the base of the tail. Continue to gently restrain cat for a few seconds until product absorbs into cat's coat.

**** FOR SALE TO VETERINARIANS ONLY**

STORAGE AND DISPOSAL

Storage: Store in cool, dry place. Protect from freezing.

Pesticide Disposal: Securely wrap original container in several layers of newspaper and discard in trash.

Container Disposal: Do not reuse empty container. Wrap container and put in trash.

ECTO F724 PRODUCT is an effective and easy to use product. ECTO F724 PRODUCT prevents eggs from fleas on treated cats from developing into biting adults for one month. As with all flea and tick control products, ECTO F724 PRODUCT should be used as part of a program aimed at reducing flea populations in the cat's environment (bedding, carpets, yard). For existing flea infestations, a premise treatment including an adulticide and larvicide should be used prior to treating your cat with ECTO F724 PRODUCT. Consult your veterinarian, entomologist or retailer for program recommendations.

NOTICE OF WARRANTY

ECTO DEVELOPMENT CORPORATION MAKES NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR OTHERWISE, EXPRESSED OR IMPLIED CONCERNING THIS PRODUCT OR ITS USES WHICH EXTEND BEYOND THE USE OF THE PRODUCT UNDER NORMAL CONDITIONS IN ACCORD WITH THE STATEMENTS MADE ON THIS LABEL.

Cat Spot-On Label (full)

TAB LABEL (folding card and tabbed card packaging designs)

ECTO F724 PRODUCT

Active Ingredients: Pyriproxyfen:
2-[1-methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine..... 5.3%

KEEP OUT OF THE REACH OF CHILDREN
SEE MAIN LABEL FOR ADDITIONAL
PRECAUTIONS AND INSTRUCTIONS FOR USE

EPA Reg. No. 67505-X

Cat Spot-On Label (full)

TUBE LABEL (folding card and flat card packaging designs)

ECTO F724 PRODUCT

012458

PYRIPROXYFEN 5.3% W/W

KEEP OUT OF THE REACH OF CHILDREN
READ DIRECTIONS AND
PRECAUTIONS BEFORE USING

EPA Reg. No.: 67505-X



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002748

Chemical:	2-(1-Methyl-2-(4-phenoxyphenoxy)ethoxy)p
PC Code:	129032
HED File Code	21600 Domestic Animal Safety
Memo Date:	12/15/1997
File ID:	TX012458
Accession Number:	412-01-0120

HED Records Reference Center
02/09/2001